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IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A method for imaging examination of an examination object, ~~in particular a patient (P), in which~~comprising:

~~a)~~ ___~~the examination object is~~ administer~~ed~~ing a contrast agent to the examination object~~(KM),~~;

~~b)~~ _____thereafter determining~~,~~ at least two spatial distributions ~~($\mu_1(x,y)$, $\mu_2(x,y)$~~ of X-ray attenuation values~~ are determined~~, ~~which~~ the X-ray attenuation values ~~in each case represent~~representing at least one of a~~the~~ local X-ray attenuation coefficient and ~~($\mu(x,y)$), or~~ a variable ~~(C)~~ linearly dependent thereon, the two spatial distributions ~~($\mu_1(x,y)$, $\mu_2(x,y)$) comprising~~including at least~~:~~,

——_____a first attenuation value distribution ~~($\mu_1(x,y)$)~~ determined on the basis of a first X-ray spectrum,

——_____a second attenuation value distribution ~~($\mu_2(x,y)$)~~ determined on the basis of a second X-ray spectrum, differing from the first X-ray spectrum~~,~~;

~~c)~~ ____evaluating ~~two~~ the at least two attenuation value distributions ~~($\mu_1(x,y)$, $\mu_2(x,y)$) are evaluated~~ and determining at least one of a spatial distribution of one or more predefined atomic number values ~~(Z; Z1, Z2,...) or~~and a spatial distribution ~~(Z(x,y))~~ of non-predefined atomic number values present in the examination object~~ is determined~~, ~~which~~ the spatial distribution ~~includes~~ including information relating to

the distribution of the administered contrast agent ~~(KM)~~ in the examination object~~,~~; and

~~d)~~ using the spatial atomic number distribution ~~(Z(x,y)) is used~~ to represent the contrast agent ~~(KM)~~ by imaging.

2. (Currently Amended) The method as claimed in claim 1, ~~in which~~wherein an atomic number value of the contrast agent ~~(KM)~~ is predefined.

3. (Currently Amended) The method as claimed in claim 1, ~~in which~~wherein the spatial atomic number distribution is determined as a two- or three-dimensional field, the respect field value being a local atomic number value ~~(Z(x,y))~~ at the location ~~(x,y)~~ represented by the relevant field.

4. (Currently Amended) The method as claimed in claim 3, ~~in which~~wherein, in addition to the atomic number distribution, a further two- or three-dimensional field is determined whose field values respectively reproduce a local density value ~~(ρ(x,y))~~.

5. (Currently Amended) The method as claimed in claim 4, wherein
~~in which~~ the determined field having the atomic number values ~~(Z(x,y))~~ and the determined field having the density values ~~(ρ(x,y))~~ are used for the purpose of calculating a local concentration or a local quantity of the contrast agent.

6. (Currently Amended) The method as claimed in ~~one of claims~~ claim 1 ~~to 5~~, wherein
~~in which~~ a contrast agent ~~(KM)~~ having an atomic number greater than 20 is used.

7. (Currently Amended) The method as claimed in claim 6, wherein

~~in which~~ a contrast agent ~~(KM)~~ having an atomic number greater than 40 is used.

8. (Currently Amended) The method as claimed in ~~one of claims~~claim 1 ~~to 7~~, wherein
~~in which~~ a contrast agent ~~(KM)~~ having an atomic number less than 83~~, in particular less than 70,~~ is used.

9. (Currently Amended) The method as claimed in ~~one of claims 1 to 8~~claim 1, wherein
~~in which~~ the contrast agent ~~(KM)~~ contains at least one of gadolinium, iodine, ytterbium, dysposium, iron and~~/or~~ bismuth.

10. (Currently Amended) The method as claimed in ~~one of claims 1 to 9~~claim 1, wherein ~~in which~~ the contrast agent ~~(KM)~~ contains an organic compound~~, in particular an aliphatic hydrocarbon, for example sugar~~.

11. (Currently Amended) The method as claimed in ~~one of claims 1 to 10,~~
~~in which~~claim 1, wherein the contrast agent ~~(KM)~~ contains at least one of an amino acid ~~or~~ and a peptide.

12. (Currently Amended) The method as claimed in ~~one of claims 1 to 11,~~
~~in which~~claim 1, wherein the contrast agent ~~(KM)~~ is designed for selective deposition ~~at~~ at least one of at specific sites and ~~or~~ in specific tissue parts of the examination object.

13. (Currently Amended) The method as claimed in ~~one of claims 1 to 12,~~
~~in which~~claim 1, wherein the contrast agent ~~(KM)~~ is added in a weight concentration from the range of 10^{-4} to 10^{-7}~~, in particular from the range of 10^{-5} to 10^{-6}~~.

14. (Currently Amended) The method as claimed in ~~one of claims 1 to 13,~~
~~in which~~claim 1, wherein a first functional dependence ~~(11)~~ of a first attenuation value of the first attenuation value distribution of density and atomic number, and at least a second functional dependence ~~(41)~~ of a second attenuation value, assigned to the first attenuation value, of the second attenuation value distribution of density and atomic number are determined,
and ~~in which~~wherein the spatial atomic number distribution ~~and optionally a spatial density distribution~~ is~~/are~~ determined by comparing the first functional dependence ~~(11)~~ with the second functional dependence ~~(41)~~ and, if appropriate, with further functional dependences.

15. (New) The method as claimed in claim 1, wherein a contrast agent having an atomic number less than 70 is used.

16. (New) The method as claimed in claim 1, wherein the contrast agent contains an aliphatic hydrocarbon.

17. (New) The method as claimed in claim 1, wherein the contrast agent is added in a weight concentration from the range of 10^{-5} to 10^{-6}.

18. (New) The method as claimed in claim 1, wherein a first functional dependence of a first attenuation value of the first attenuation value distribution of density and atomic number, and at least a second functional dependence of a second attenuation value, assigned to the first attenuation value, of the second attenuation value distribution of density and atomic number are determined, and wherein the spatial atomic number distribution and a spatial density distribution are determined by comparing the first functional dependence with the second functional dependence and, if appropriate, with further functional dependences.